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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,259	02/06/2002	Dan E. Fischer	7678.582	3302
22913	7590	10/05/2005		
WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER & SEELEY) 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			EXAMINER BROWN, MICHAEL A	
			ART UNIT	PAPER NUMBER
			3764	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

TWH

Office Action Summary	Application No. 10/072,259	Applicant(s) FISCHER ET AL.	
	Examiner Michael Brown	Art Unit 3764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 7-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2 and 7-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 7-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko JP '733 in view of Takai, along with Breads.

Ko discloses in figures 1-2 a method of forming a mouthguard substantially as claimed. However, Ko doesn't disclose the elastomeric material being polysiloxane.

Takai teaches a mouthguard (mouthpiece col. 1, line 13-24) that a silicone base elastomeric material (polysiloxane, col. 1, lines 33-44) is fitted inside of to form a custom-made mouthguard. Breads teaches that the elastomeric material is flowable before it cures (claim 5, lines 46-57). It would have been obvious to one having ordinary skill in the art at the time that the invention was made that the silicone elastomeric material as taught by Takai or Breads could be substituted for the cold curing material disclosed by Ko in order to form the mouthguard with a non-heat curing elastomeric filler. Thus, having a filler that is elastic after curing. Note: Applicant discloses on page 9 in the specification of the present invention that the elastomeric polymeric material polysiloxane is mixed with a cross-linking agent and this material is called a cold curing silicone soft liner. The mouthguard as taught by Takai is a

Art Unit: 3764

mouthguard, used to play sports, that is normally harder than the inner cushioning layer inside of the mouthguard.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Grossberg.

Grossberg teaches in figures 1-5 a method of forming a mouthguard using an adhesive (col. 2, lines 10-12) to attach an elastomeric polymer to a mouthguard. It would have been obvious to one having ordinary skill in the art that the time that the invention was made that elastomeric material as taught by Takai and Breads could be attached to the mouthguard by adhesive as taught by Grossberg.

Claims 15, 18, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko in view of Takai, along with Wagner, along with Thornton.

Ko discloses in figures 1-2 a method of forming a mouthguard, substantially as claimed, as set forth above. Takai teaches a mouthguard having an elastomeric cold curable lining, as set forth above. Wagner teaches in figures 1-6 a custom made mouthguard. Thornton teaches a custom mouthguard that a deformable material 20 is introduced into after the mouthguard has been customized. It would have been obvious to one having ordinary skill in the art at the time that the invention was made that the mouthguard disclosed by Ko could be fabricated with the cold curable elastomeric material as taught by Takai for the reason set forth above. The mouthguard could be custom made in order to allow it to fit the user. The deformable material could be inserted into the mouthguard after the mouthguard has been customized as taught by Thornton.

Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 15 above, and further in view of Wolfenson.

Wolfenson teaches in figures 1-3 a mouthguard comprising the method step of forming the mouthguard of a stone cast (col. 1, lines 43-46). It would have been obvious to one having ordinary skill in the art at the time that the invention was made that the mouthguard disclosed by Ko could be fabricated from a cast as taught by Wolfenson in order to custom form the mouthguard of the user's teeth.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 18 above, and further in view of Wolfenson, along with Grossberg.

Wolfenson teaches in figures 1-3 a mouthguard formed of a stone casting, as set forth immediately above. Grossberg teaches a mouthguard formed of a sheet. It would have been obvious to one having ordinary skill in the art at the time that the invention was made that the mouthguard disclosed by Ko could be fabricated from a cast stone as taught by Wolfenson for the reason set forth above and of a single sheet as taught by Grossberg to reduce cost.

Claims 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko in view of Takai, along with Grossberg.

Ko discloses in figures 1-2 a method of forming a mouthguard, substantially as claimed, as set forth above. Takai teaches a mouthguard comprising a cold curing elastomeric material, as set forth above. Grossberg teaches in figures 1-5 a method of attaching an elastomeric material to a mouthguard using adhesive, as set forth above.

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to use the adhesive to attach the elastomeric material as taught by Takai to the mouthguard disclosed by Ko for the reason set forth above.

Response to Arguments

Applicant's arguments filed July 12, 2005 have been fully considered but they are not persuasive. Applicant argues that Ko teaches a H-shaped. However, clearly in the figure shown with the abstract, the mouthguard has a U-shape. The upper and lower teeth are covered by this U-shape. Note: Arguments pertaining to claim 15 are moot because of the new rejection. Applicant argues that the prior art doesn't disclose an adhesive to enhance the bonding between a curable elastomeric and the mouthguard. However, Grossberg was used to set forth the environment of an elastomeric attached to a mouthguard using an adhesive. Clearly the bonding strength between the inner cushion (elastomeric and the mouthguard is stronger than the elastomeric being attached to the mouthguard without the adhesive).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 3764

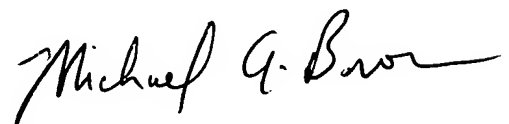
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Brown whose telephone number is 571-272-4972. The examiner can normally be reached on 5:30 am-4:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gergory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Brown
October 3, 2005



MICHAEL A. BROWN
PRIMARY EXAMINER